



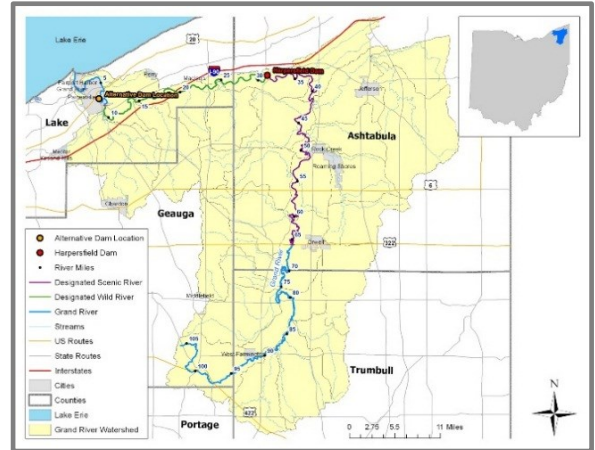
**US Army Corps  
of Engineers**

# Harpersfield Dam/Grand River, Geneva, OH

## Great Lakes Fishery & Ecosystem Restoration Section 506, Water Resources Development Act of 2000

**Project Location:** The project is located in the town of Harpersfield in Ashtabula County, OH along the Grand River. The new seal lamprey barrier is immediately upstream of the historic Harpersfield covered bridge on Old Harpersfield Road.

**Description of Problem:** Sea lamprey in the Great Lakes are a problem because of their aggressive parasitism on key predator species and game fish, such as lake trout, lake whitefish, chub, and lake herring. The purpose of the project is to effectively prevent migration of sea lamprey in the Grand River upstream of the Harpersfield Dam, replacing the existing dam with a new sea lamprey barrier that meets current standards the selected alternative from feasibility study integrated sea lamprey traps.



*Figure 1: View of the demolition of the existing barrier during construction.*

**Project:** The National Ecosystem Restoration Plan consists of construction of a new sea lamprey barrier in the immediate vicinity of the existing dam. A lamprey barrier is being constructed immediately upstream of the existing dam. The upper hollow section of the existing dam was removed to allow for construction of the new sea lamprey barrier. The base of the existing dam is being incorporated into the new project as a downstream apron. The removal of the existing hollow crest is necessary to prevent the formation of an intermediate pool between the existing and new structures. An existing fish ladder was

removed and the barrier is designed to minimize safety risks associated with potential submerged hydraulic jumps (also known as “drowning machines”). A by-pass pipe and valve required for emergency lowering of the pool level will also be replaced.

**Partners and Collaboration:** The Great Lakes Fishery Commission, Ashtabula County Metro Parks, and Ohio Department of Natural Resources



Figure 2: A side view of the new Sea Lamprey Barrier

**Project Benefits:** This project will prevent sea lamprey passage and reproduction from approximately 1,266 miles upstream of the Harpersfield Dam on the Grand River and its tributaries. Additionally, it will prevent the need for lampricide treatments above the dam, saving \$335,000 per treatment and removing what could be a potentially lethal dosing to some non-target species. The project also will lower the overall sea lamprey population in Lake Erie, which in turn improves the sustainability of valuable fisheries resources.

Measure of Progress	Project Output
2.1.2 - Number of GLRI-funded projects that block pathways through which aquatic invasive species can be introduced to the Great Lakes ecosystem	1,266 miles of protected river and tributaries
2.2.2 - Number of tributary miles protected by GLRI-funded projects	1,266 miles of protected river and tributaries

**Project Status:** Design is complete, and the construction contract was awarded in August of 2018. Construction began in October 2018. Removal of the existing barrier was complete in December of 2019. Construction will begin on a modification of the dam crest Q2 in FY22.

Project Milestones	
Construction Award	August 2018 (A)
Construction Begins	October 2018 (A)
Construction Completion	June 2023

Estimated Project Costs	
Federal	\$3,909,000
Non-Federal	\$2,105,000
Total	\$6,014,000

Project Budget	
FY 2017	\$190,000
FY 2018	\$2,750,000
FY 2019	\$400,000
FY 2020	\$80,000
FY 2021	\$230,000
FY 2022	\$187,500

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